

Manhattan Plant Materials Center

Manhattan, Kansas



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Sand Blowout Reclamation

One area that has received much interest of late has been the reclamation of sand blowouts. Plant materials personnel have been requested by field offices in Kansas and Oklahoma to look at several of these type-sites and develop reclamation recommendations. In addition, the Washington County, Colorado Soil Conservation District has undertaken an evaluation study to examine the effectiveness of different types of mulches and seeding rates on sand blowout stabilization. A summary of their work was presented in the January 2002 PMC Newsletter.

Typically, critical area treatment of sand blowout sites involves the seeding of species such as prairie sandreed, sand bluestem, little bluestem, and sand lovegrass. The problem with these species is not with their adaptability to the site, but rather the length of time it takes for establishment at the level necessary to provide erosion protection. Research has shown that the success of blowout stabilization is dependent on the type of vegetation established, the amount of cover provided by the vegetation, and most importantly, how quickly the vegetation establishes. This is the primary reason why a cover crop and or surface mulch is normally recommended as part of the reclamation plan.

From a reclamation standpoint, it would be desirable to include within the sand blowout seeding mixture a native, adaptive species

that would establish quickly and initially aid in site stabilization. This initial stabilization would allow the slower establishing species in the mix an opportunity to colonize on the site. The Manhattan Plant Materials Center has initiated a study to evaluate the potential use of blowout grass (*Redfieldia flexuosa*) as a quick stabilizing component in sand blowout reclamation. Blowout grass is a native, perennial species, and as its name implies, is adapted to sand blowouts. It is recognized as a pioneering species that quickly establishes on sandy sites and provides erosion protection through development of an extensive root system.

In 2000, field office personnel collected blowout plants and seed from sites in the sandhill region of Nebraska. That material, along with seed that was originally collected in the 1980's, will be used to answer some specific questions regarding the use of the species. Specifically, germination requirements, establishment methods, and seed production techniques will be investigated. The ultimate goal of the study is to develop a source of blowout grass that would be provided to commercial growers for their use in large-scale production. Ultimately, commercial growers would then make the material available to the public for use in meeting their particular conservation need.

International Conservationist Visits PMC

Rolf Derpsch, senior advisor to the MAC-GTZ Soil Conservation Project in Paraguay visited the Manhattan PMC on January 15, 2002. Rolf has worked for the German

Agency for Technical Cooperation (GTZ) since 1966. He was among the first researchers to bring no tillage technology to Brazil and other countries in Latin America. His research has focused on refining crop rotations and cover crops for no till systems. Rolf was in Kansas to address the No Till on the Plains Winter Conference held in the Salina, Kansas Bicentennial Center on January 21 and 22.

The internationally renowned scientist spent the morning at the PMC visiting and touring the Center's facilities and fields. He was interested in the PMC's equipment and the plants we have released for conservation purposes.

SRM 2002 Annual Meeting

The Society for Range Management held its annual meeting February 13-19, 2002 in historic downtown Kansas City, Missouri. The meetings began in earnest with the plenary session on Friday morning, February 15. Maurice Davis, Co-chair of the 2002 SRM Meeting welcomed the participants and introduced speakers that discussed Missouri's grasslands, Great Savannas and Prairies of the South. Norm Stucky, Missouri Department of Conservation, gave an interesting talk about the history of the Missouri River and how it has influenced the settlement of the Western US. Technical sessions began after the Morning Plenary session and continued through the weekend into Monday afternoon. The meeting concluded on Tuesday with tours.

The staff of the Manhattan Plant Materials Center were involved in two technical sessions at the meeting. Rich Wynia presented a discussion concerning native legumes for conservation in the technical session: Seed Production and Propagation of Native Plants. John Row prepared a

poster titled Establishment of Eastern Gamagrass using primed seed. This poster was a cooperative effort with Walter Fick from the KSU Agronomy Department.

American Indian Outreach

The Plant Materials Center has work going on with the Bloomfield, Nebraska Field Office assisting the Lewis and Clark Natural Resource District. In February, Resource Conservationist Jane Wilmes, was requested by the Nebraska Indian Community College to find sources of traditional horticultural crops. Jane asked the PMC for assistance and we were able to provide her with a list of contacts. This allowed the NRCS to provide assistance in a timely and efficient manner, without taking valuable time from the Field Office. Jane has also done considerable work with the Santee Sioux and the Nebraska Game and Park Commission in Niobrara State Park. A medicine wheel was built and 22 different types of plants were seeded. A brochure on this project needs to be done so the public can learn about the lore of a medicine wheel and the native plant resources. The PMC is assisting in the write-up of this pamphlet. Like other resource personnel, the PMC is there to assist the Field Offices. If you have plant resource concerns please contact Terry Conway in the Salina, KS State Office or the PMC directly.

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